

REMARKS

Reconsideration and allowance of the subject application are respectfully solicited.

Claims 1-10 and 12-13 are pending in this application. Claims 6-13 have been withdrawn from consideration. Claim 11 is cancelled herein without prejudice to or disclaimer of the subject matter contained therein due to the amendment of Claim 1, from which it depends. Claim 1 is the only independent claim currently under consideration. Claim 1 has been amended to define still more clearly what Applicants regard as their invention, in terms which distinguish over the art of record. Support for this amendment may be found in the specification at least at page 11, lines 13-19. It is submitted that no new matter has been added by the amendments herein.

Claims 1-5 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The Examiner takes the position that Claim 1 appears to be internally inconsistent, querying whether the gaps are structure left from the presence of the particles. In the invention as presently claimed, the ratio of the pigment particles to the thermoplastic resin particles is selected so that the thermoplastic resin is used in a range of from 1 to 40 parts by

weight per 100 parts by weight of the pigment. Therefore, the amount of the binder is less than that of the pigment.

Applicants note that under these circumstances, existence of thermoplastic resin having no particle structure remaining is not inconsistent with the presence of gaps. Applicants submit that the claims comply with all aspects of Section 112, and respectfully request withdrawal of this rejection.

Claim 1 was rejected under 35 U.S.C. § 102(b), as allegedly anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over, Bilodeau et al. (U.S. Patent No. 5,405,678). Claims 1-5 were rejected under 35 U.S.C. § 103(a) for allegedly being obvious over Bilodeau et al. and further in view of Katsutoshi et al. (Japanese Publication No. 08-002090). Applicants respectfully disagree with these rejections as applied to the present claims.

Before addressing the merits of the rejections, Applicants believe it will be helpful to review some features and advantages of the present invention. The present invention relates to a recording medium for ink-jet recording, provided with an ink-receiving layer on at least one surface of a substrate. In the ink-receiving layer, the amount of thermoplastic resin is 40% or less than the amount of pigment. The ink-receiving layer comprises a porous layer. The porous

layer, which comprises pigment particles and thermoplastic resin particles, is formed on the substrate, and then the thermoplastic resin particles are fused and function as a binder for the pigment. At the same time, in the porous layer formed by the fusion of the thermoplastic resin particles, gaps are formed which can incorporate even the pigment in a pigment ink into the inside. Thus, ink-jet recorded images formed on the recording medium according to the invention using a pigment ink have excellent scratch-resistance. In Applicants' view, the cited references do not teach or suggest the claimed invention.

Bilodeau et al. discloses an ink-jet recording sheet comprising a substrate coated with a composition comprising a hydrophobic polymeric latex, which has not been fully coalesced, and which may contain a pigment. The hydrophobic polymer latex is employed in an amount of at least 35%, more preferably at least 55%, and most preferably at least 65%, e.g., 65-85% by volume of the dried coating (column 4, lines 43-56). The amount of the pigment is 40% or less, more preferably 20% or less, e.g., 15-20% by weight (column 5, lines 49-54).. Accordingly, Bilodeau et al. does not teach or suggest the ratio of the thermoplastic resin to the pigment in the ink-receiving layer, as recited in amended Claim 1.

Katsutoshi et al. discloses ink-jet recording cards comprising an alumina hydrate porous layer containing an alumina hydrate and a binder and a transparent resin layer provided on a substrate, in this order. Applicants submit, however, that Katsutoshi et al. does not remedy the deficiencies of Bilodeau. Therefore, whether taken singly or in combination, the cited references do not teach or suggest the present invention.

In Applicants' view, the present invention is patentably defined by independent Claim 1. The dependent claims are also submitted to be patentable for the same reasons as Claim 1 and because they set forth additional features of the present invention that further distinguish them over the cited art. Separate and individual consideration of each dependent claim is respectfully requested.

Withdrawal of the rejections under Sections 112, 102 and 103 and rejoinder of withdrawn Claims 6-10, 12 and 13 are respectfully requested.


This Amendment After Final Rejection is an earnest attempt to advance prosecution and reduce the number of issues, and is believed to place this application in condition for allowance. No new claims have been added. Furthermore, Applicants respectfully submit that a full appreciation of

these amendments will not require undue time or effort given the Examiner's familiarity with this application. Accordingly, entry of this Amendment under 37 C.F.R. § 1.116 is respectfully requested.

Applicants submit that this application is in condition for allowance, and a Notice of Allowance is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES TO CLAIMS

1. (Four Times Amended) A recording medium for ink-
jet recording with an ink containing a pigment, provided with an
ink-receiving layer on at least one surface of a substrate,
wherein said ink-receiving layer comprises [is composed of] a
porous layer comprising thermoplastic resin particles that have
been mutually fused with no particle structure left and pigment
particles, [and thermoplastic resin particles that have been
mutually fused with no particle structure left, and] wherein the
ink-receiving layer and the substrate are fused, and the ink
receiving layer has gaps formed by the fusion of the
thermoplastic resin particles, and

wherein the amount of the thermoplastic resin in the
ink-receiving layer is 40% or less of that of the pigment in the
ink-receiving layer.